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ABSTRACT

This paper examines common concerns and practices among professional schools and identifies contemporary trends and future directions for professional education. A review of similar studies is undertaken and a summary of the varieties of definitions of "profession" is given. Among the topics considered are professional goals and objectives; the process of recruitment, curricular change, and continuing education; and the relationships of professional schools to their respective universities, practicing professionals, and society as a whole. The author believes the number of professionals in the work force will continue to grow and the professional work force will undergo significant changes in composition as new professions and paraprofessions emerge. He foresees new professional schools being built that will require new faculties and predicts that new professional service modes and delivery systems will emerge to modify the characteristics of professional education. An extensive bibliography is included. (Author/PG)

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Trends in Education for the Professions

G. Lester Anderson

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G. Lester Anderson

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Foreword

This paper examines common concerns and practices among professional schools and identifies contemporary trends and future directions for professional education. A review of similar studies is undertaken and a summary of the varieties of definitions of "profession" is given. Among the topics considered are professional goals and objectives; the processes of recruitment, curricular change, and continuing education; and the relationships of professional schools to their respective universities, practicing professionals, and society as a whole. The author believes the number of professionals in the work force will continue to grow and the professional work force will undergo significant changes in composition as new professions and paraprofessions emerge. He also foresees new professional schools being built that will require new faculties and predicts that new professional service modes and delivery systems will emerge to modify the characteristics of professional education. The author, G. Lester Anderson, is acting Dean of the School of Education, Director of the Center for the Study of Higher Education, and Professor of Education at the Pennsylvania State University.

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Introduction

In spite of a significant literature in the various fields of professional education, the process of becoming educated in the professions has received limited attention. While there are journals that deal with general education and liberal education, there is no journal of professional education as such. Also comparative studies, discussion of common policies and practices, or conferences devoted to generalized concerns among the professions or the education of professionals are rare.

One possible reason for this condition is that by definition each profession is unique by virtue of rendering a unique service. The bodies of knowledge and craft skills of each profession are, to a great extent, esoteric. Therefore, many persons in professional education will claim they have little to learn from professionals in other fields nor do they feel they themselves have much to contribute to other professions.

Initially, there appears to be great variety in methods of education for the different professions, a variety just as great as in modes of professional practice. There are distinctions made between "learned professions" and "other" professions. The place where the professional education takes place varies. It could be a liberal arts college, or university, or an independent school. In this respect professional education may end with a baccalaureate degree, or it may be confined exclusively to a graduate professional school, or a combination of pre- and postbaccalaureate study.

Some occupations are deemed professional without question and their educational programs are relatively homogeneous and stable—for example, law, medicine, and dentistry. Other occupations eventually become known as professional, such as public administration and journalism, but there is no common pattern of preparation for them. Indeed, many competent persons at work in these fields do not have explicit education or training for their area—they have learned by experience, perhaps independent study, or informal internships and apprenticeships in their earlier years. In fact, some practitioners in fields like journalism or public administration are not sympathetic to the concept of professional schools for their fields. We should recall, however, that study for matured and established professions emerged

out of situations not unlike those current in business administration, journalism, and public administration (Haber, in Gordon, 1974): Lincoln did not attend law school; not too long ago pharmacists were licensed after an apprenticeship; and medical education in the nineteenth century was often proprietary, cursory, and exceedingly limited.

Further contrasts can be made. Some professions are service oriented, while others are production oriented. Some professionals work almost entirely in an autonomous or independent status or in the private sector of the economy, such as attorneys and accountants, while others are seldom self-employed or work almost entirely in the public sector, for example, social workers or teachers in elementary and secondary schools. Heterogeneity, variability, and levels of maturity among the various professions and education for them must be acknowledged.

In light of these distinctions, a review of goals, processes, trends, issues, and problems among colleges or schools for professional education should be illuminating and helpful to those who educate professionals or administer colleges and universities having professional schools or programs.

There does exist a literature that deals with professions and professionalization in a generic sense. Much of it has been written by sociologists and therefore employs the research methodology of that discipline. The report prepared by the Carnegie Commission by Hughes et al. (1973) is one such study. Hughes writes, "we believe that while we have attended to the peculiarities of these professions as they occur now, we have done it rather a generic way" (p. xv). Some educators have concerned themselves with comparative studies of education for the professions (McGlothlin 1960). Another group of educators have focused on aspects of the generalized field, such as historical developments, accreditation of professional schools, and the licensure or certification of professionals, a topic highly significant to the education of professionals (NSSE Yearbook, 1962). This paper relates to those topics that allow generalizations—either of commonality or of variability—about education for the professions.

Definitions and Criteria

What is a profession in a definitional sense and what are the criteria that establish an occupation as professional? What are the occupational categories for professionals, how many professionals are there, and what are the dimensions of their education?

The first and still classic statement that embodied a definition and criteria was Flexner's address, "Is Social Work a Profession?" (1915). All statements regarding criteria for professionalism since the date of his paper are derivative, albeit further refined and developed. Both classic and current statements embody these elements: (1) Professional activities have a large intellectual component; the skill, craftsmanship, or practice of a profession rests on a body of knowledge. This knowledge is not only empirically derived but is also a product of research or scholarly activity. (2) The practice of a profession involves a craftsmanship, meaning knowledge is put to use; this craftsmanship is teachable and learnable, and is socially useful. (3) Society allocates to those who practice a profession a great measure of control of the education for it and the right to be self-policing. The quality of professional service, it is presumed, is to be judged only by other professionals in the same field. Hence a profession is governed by a code of ethical conduct to which its members are held, and the professional person is presumed to be basically motivated by altruism. (4) The professional practices his craftsmanship in terms of professional judgment. In rendering such judgments the professional operates autonomously, although he may consult and receive the judgments of his peers.

As noted above, these basic criteria have been reviewed, criticized, expanded, and condensed. It has been held, and rightly, that they represent an ideal and that no one profession can "measure up" in the fullest sense of the word. Differently put, the criteria are held to be "too rigid and too mechanical." Implied is the idea that the practice of a profession transcends rigid rules or concepts and becomes an art. As Flexner himself wrote: "What matters most is professional spirit" (1915, p. 590). Yet the concepts and criteria developed by Flexner and subsequent analysts are highly useful, highly practical, and necessary. They also in a large measure are operational in a delineating and guiding sense for all occupations generally and for those "striving" to be professional. They form a base for admission to professional schools, for curriculum, for methods of instruction and evaluation and, ulti-

mately, for licensure, certification, and evaluation of the practitioner. They also become criteria by which a striving occupation or a nearly professional occupation can gauge its growth to professionalism. Such an evaluation can be helpful to college or university administrators as they consider launching postsecondary programs to prepare students for the world of work. Every college or university administrator or faculty committee has to ask and answer the question: Does this program belong in higher education or should it be elsewhere? At the same time, colleges or universities are frequently criticized for offering programs without intellectual content, although they may represent training in a skill or craft. Finally, colleges and universities in collaboration with others are "inventors" or "creators" of new areas of work-service that will ultimately be deemed professional and will be established within a college or university. Occupations associated with "scientific agriculture" or "scientific management" are of this order. Examples are: veterinary medicine, forestry, hospital administration, and parks and recreation management. A special point is made that these concepts are useful in a generic sense. They should be known and understood by all who would educate professionals.

The concepts and criteria surrounding the larger concept of "professional" are sufficiently useful to expand the discussion. The idea of "profession" is sufficiently prestigious that almost all worker organizations make, or would like to make, claim for professionalism. To sustain such a claim, legitimately or otherwise, means reward in the form of attracting customers or clients, assessing fees, or establishing salaries. Consequently, regulatory bodies and others who work in the public interest, and in the interest of clients or consumers, are continuously making decisions about occupations and are making these known to various publics. It is in the interest of those who practice the various professions that this be done. A considerable part of the energy of professional associations is given to protecting the boundaries of a particular public service and to preventing an invasion of the service area by "nonprofessionals." To do all this properly, public and professional bodies require some recognition and acceptance of "professional criteria."

The term is also useful to describe the person who performs a particular task as a result of training and *for financial benefits*, as distinguished from the amateur, who either may have lesser training or does not seek a financial benefit, or both. We thus have the professional and amateur athlete, musician, artist, or dancer, and so on. This

distinction is useful, but it does not help us to differentiate or codify the training for those occupations with which we are here concerned.

Two more observations of this type may be useful. Becker (NSSE Yearbook 1962) has been exceedingly helpful in expanding our understanding of "profession" when he traces the meaning in terms of folk concepts, social expectations, and historical evaluations, and in general deals with a variety of ambiguities surrounding the term. He states,

> One way out of [the] dilemma [is to] take a radical sociological view, regarding professions simply as those occupations which have been fortunate enough in the politics of today's work world to gain that honorific title. Accepting this view, one concludes there is no such thing as the 'true' profession and no set of characteristics necessarily associated with the title. There are only those work groups which are commonly regarded as professions and those which are not (p. 33).

This statement is useful as a taking off point for discussion. We can legitimately ask, How *do* occupations gain the honorific title, profession? Becker postulated the idea that "we view profession as an honorific symbol . . . and analyze the characteristics of that *symbol*" (p. 34, italics added). He then develops the idea that the symbol implies that a profession knows, maintains, controls, and enjoys an esoteric body of knowledge, over which in one sense it holds a monopoly. A professional can do "something" *only other professionals* of the same designation can do; professionals are among the most able and intelligent of people; learning a profession requires many years of systematic study and effort; professionals practice free of lay control; the state may regulate professional practice; professional practice ideally represents a relationship to a client that is personal, altruistic, private, based on mutual trust, and not subject to revelation to others without consent. Finally, a professional occupies an "esteemed position" in society, in that professionals are presumed to be economically more affluent than others and have high community prestige (pp. 33-46).

Becker's analysis has a sophistication that transcends the "criteria concepts" but does not refute or make them irrelevant. His analysis does add to our understanding and is additionally useful to the educator. It will prove particularly useful as we approach the concept of professional "socialization."

Schein (1972) provides perhaps the most valid statement as to what characterizes the professional.

> 1. The professional, as distinct from the amateur, is engaged in a *full-time occupation* that comprises his principal source of income.

2. The professional is assumed to have a *strong motivation* or calling as a basis for his choice of a professional career and is assumed to have a stable lifetime commitment to that career.
3. The professional possesses a *specialized body of knowledge and skills* that are acquired during a *prolonged period of education and training.*
4. The professional makes his decisions on behalf of a client in terms of *general principles, theories, or propositions,* which he applies to the particular case under consideration, i.e., by "universalistic" standards, in terms of Parsons' pattern variables (Parsons 1959).
5. At the same time, the professional is assumed to have a *service orientation,* which means that he uses his expertise on behalf of the particular needs of his client. This service implies diagnostic skill, competent application of general knowledge to the special needs of the client, and an absence of self-interest.
6. The professional's service to the client is assumed to be based on the *objective needs of the client* and independent of the particular sentiments that the professional may have about the client. The professional promises a "detached" diagnosis. The client is expected to be fully frank in revealing potentially unlikeable things about himself; the professional as his part of the contract is expected to withhold moral judgment, no matter how he may feel personally about the client's revelation. Thus, the professional relationship rests on a kind of *mutual trust between the professional and client.*
7. The professional is assumed to know better what is good for the client than the client himself. In other words, the professional demands *autonomy of judgment of his own performance.* Even if the client is not satisfied, the professional will, in principle, permit only his colleagues to judge his performance. Because of this demand for professional autonomy, the client is in a potentially vulnerable position. How does he know whether he has been cheated or harmed? The profession deals with this potential vulnerability by developing strong ethical and professional standards for its members. Such standards may be expressed as codes of conduct and are usually enforced by colleagues through professional associations or through licensing examinations designed and administered by fellow professionals.
8. Professionals form *professional associations which define criteria of admission, educational standards, licensing or other formal entry examinations, career lines within the profession, and areas of jurisdiction* for the profession. Ultimately, the professional association's function is to protect the autonomy of the profession; it develops reasonably strong forms of self-government by setting rules or standards for the profession.
9. Professionals have great power and status in the area of their expertise, but their *knowledge is assumed to be specific.* A professional does not have a license to be a "wise man" outside the area defined by his training.
10. Professionals make their service available but ordinarily are *not allowed to advertise or to seek out clients.* Clients are expected to initiate the contact and then accept the advice and service recommended, without appeal to outside authority (pp. 8-9).

Comparative Aspects of Professional Educational Processes and Concerns

The statement by Flexner stood rather in isolation as a generalized statement about professions until that made by A. M. Carr-Saunders and P. A. Wilson in 1933. Their contribution has been that they treated the professions in a comparative sense. This statement not only has historic interest but also has remained to the present a stimulus to thought and discussion about the professions. Lloyd E. Blauch organized and edited a U. S. Office of Education publication titled *Education for the Professions* (1955). In addition to generalized statements of professional criteria and the dimensions of professional education and professionalism, the Blauch edited volume has highly objective descriptions of education for 28 professions. (More contemporary descriptions for 37 professions will be found in Furniss 1973.)

Another *Education for the Professions* was published as the Sixty-First Yearbook of the National Society for the Study of Education (NSSE 1962, Part II). In the first chapter Anderson delineates thirteen continuing problems that he believes are common to education for every profession (pp. 3-26). These thirteen problems are in some degree as much concerns and perennial issues as they are problems. They do, however, create a matrix that explicates a variety of dimensions and relationships with which education for the professions must deal. They relate to objectives or goals; the educational concerns of student selection, curriculum, and continuing education; and the relationship of professional education to a total institution and to the education and service of other professions and paraprofessions. Anderson's premise is that education is dynamic, that a continuing ferment is ever present and is normal in professional education, and that a stable state is not really attainable or desirable. Education for every profession will continue to develop and will continue to strive toward the unobtainable ideal. Each profession will find itself under almost continual challenge to educate its students to be more responsive to human need and social concerns, to continue to broaden its scope of service, to make its service accessible to ever-expanding numbers of persons, and particularly to those heretofore deprived of or limited in receipt of professional service, and to become more preventive than therapeutic in dealing with social or personal ills, aberrations, or pathologies.

Issues of Objectives and Student Selection

Anderson (NSSE 1962, Part II, pp. 14-15) first indicated that the objectives of education for the mature as well as the emerging and striving professions are always in flux. Objectives in medicine shift from curative to preventive concepts and in the military from educating the "heroic leader" to educating the "military engineer" or a "manager of systems of men and materials." He holds that each profession assumes uniqueness of service or at least a minimum of competition with other professions in their service responsibilities. Maintenance of uniqueness limits the continuous inspection of objectives by those outside the profession except in situations where there are gross discrepancies between professional and societal objectives. Education for a profession, as a consequence, can become provincial and cultish if it does not guard against the complacency and smugness that can result from lack of extraprofessional review or criticism. Each profession strives to establish recognition of its values and services in terms of their uniqueness and utility. Professions desire social recognition and prestige because these are important factors in its ability to attract talented students as well as the resources (money, faculty, and facilities) for their education.

The day-by-day, year-by-year educational processes in the professional school are constantly challenging. These challenges are ubiquitous and omnipresent. Every professional school is concerned about the quality of students it recruits and admits and guards against a decline in quality. Matters of professional prestige, excitement of service possibilities, scholarships, and other financial support available, anticipation of financial rewards, and occupational security when fully trained are all used by professions to raise the quality of or to maintain the quality of students admitted. Manpower studies are conducted or reviewed to provide guidelines for supply and demand of professional services. These guidelines are then used to set recruiting and admitting policy.

Curriculum: The Heart of the Matter

The curriculum for the various educational programs is perhaps more talked about, discussed, evaluated, tinkered with, reconstructed, overhauled, disassembled, and reassembled—in short, continuously under surveillance—than any other aspect of professional education. The dynamics of professional education and the importance curriculum plays in such education bring this continuous self-scrutiny about. Stress among persons who exert powerful influ-

ences on the curriculum are also responsible: there has been and always will be conflict between scholars in a field (theorists and researchers) and practitioners in a given profession. For example, basic science professors in medicine want more emphasis on basic science, knowledge and theory; clinical professors want more emphasis on the clinical aspects of medicine. Such conflict will exist between legal scholars and practicing lawyers, between professors of education on the one hand and administrators and teachers in the field on the other, between experimental or research oriented psychologists and clinical or counseling psychologists.

The table of contents of Schein's *Professional Education* (1972, p. ix) lists conditions that will produce curriculum change: the changing work setting of professionals; new clients with new needs; changing needs of society; the profession's perspective on itself; changing values and needs of students; and criticism of the professions that emerges from a variety of sources.

In different terms we can enumerate and systematize a range of forces that any body of educators for the professions must continuously evaluate and translate into curricular modifications.

(1) Scholars are at work in every area of professional education and in the disciplines basic to each in an effort to develop or create new knowledge relevant to improved professional practice. As psychologists know more about learning, testing, or growth, such materials become incorporated into courses that apprentices will study on their way to becoming teachers. As psychologists, sociologists, social workers, and others learn more about families, marriage, childrearing, or effects of divorce, those who would be experts in family law will study these topics. As endocrinologists, microbiologists, biochemists, and biophysicists make new discoveries about the functioning of the human organism, e.g., how it protects itself against disease, these findings will modify the medical school curriculum. The knowledge explosion affects every field of professional practice and curricula in these fields must be modified to accommodate every advance in knowledge.

(2) To a much more limited but significant degree, scholars are studying various modes of education for the professions. Teacher educators appropriately have been the most self-conscious and hence engaged in more introspective study of their educational activities than other fields. Such study has been noted in the medical field for some years. Indeed, one of the most significant reevaluations of education ever prompted was precipitated by Abraham Flexner's

study of medical education (1910). Of this study, Miller (NSSE Yearbook, 1962) has written:

> This scholarly and devastating analysis of educational facilities *and offerings* [italics added] in the 150 medical schools then operating led the most shamefully inadequate half to close within a year, while most of those independent institutions which survived went scurrying to find the protection of a university affiliation. In the following half century American medical education, which at its worst had been training for a trade, became universally what it had been at its best, sound preparation for a scientific profession (p. 104).

It is important to note Miller's term, "a scientific profession." Medical education was to be science based, and conversely the *basic sciences* (such as anatomy, physiology, and biochemistry) were to become the first two years of the medical school curriculum, in some measure as a result of the Flexner report.

A tangential concern to the mainstream of professional education and professional curricular concerns, but no less significant, is continuing education. The knowledge explosion has had an impact on education and practice in every profession to some degree, and professionals can find themselves obsolete insofar as practice is concerned in a few short years after completing their formal education. For example, in terms of knowledge in the field, an engineer today is said to be "old" at 30 (Brown, ed., 1972, p. 59). Similarly, changing emphases of service modes require practitioners to continue their education. Medicine has become more and more institutionalized in hospitals, clinics, and in the practice of industrial medicine. This shift to institutionalization requires the continuous education of the physician. Developments of a political, social, or economic nature require that social science or social service professions seek continual educational refreshment. For example, changing tax laws require refresher courses for tax lawyers and accountants, just as changing concepts of community development require refresher courses for social welfare professionals, for planners, and for public administrators. The need for continuing education for all professionals is now generally recognized.

The conceptual bases for continuing education, its modes or organization, its delivery systems, and its bases of financial support are a very mixed bag. Recognition has not brought clarity as to how it should be managed. A major issue has been: should continuing education be a primary obligation of the initial educating organization, i.e., the professional school or college, or of the organized pro-

fession? There is no agreement among the professions and colleges and universities about this. Continuing education for teachers in any formal sense historically has been almost entirely in the hands of teacher educating institutions, although there are trends to place it elsewhere. Indeed, it can be said that most of the postbaccalaureate education of teachers is continuing education, although it frequently leads to the earning of a master's degree. The school calendar permits continuous fulltime study by teachers in summers and summer enrollments in colleges and universities are extensively made up of teachers *continuing their education*.

Medicine is characterized by very extensive continuing education programs, and the organized bodies involved in it are several. Funding is often provided by the states. Medical colleges, centers, clinics, and hospitals often collaborate with organized medical societies, utilizing physicians who are in practice or practicing physicians associated with medical colleges to conduct continuing education programs. These are often geographically dispersed within a state. They are normally of short duration—a day, 2 days, or a week. They often enroll physicians who maintain their practice while they are enrolled in a continuing education activity for part of a day. Special clinics or presentations are often arranged as part of medical society meetings. Alumni of a given medical school, or dental school, particularly if they are concentrated in a metropolitan area or a region of a state, often organize clinics and medical lectures around alumni gatherings. Continuing education in medicine and other health related professions merits the careful study of other professional groups who are still in the stage of early or limited development of continuing education programs.

Larger universities, typically public with land-grant traditions, have over the last 40 years been at work systematically to develop and expand programs of university continuing education. The first Center for Continuation Study was established at the University of Minnesota in 1936 and provided a director and a building especially built for continuing education (Alford 1968, p. 21). Since that time such Centers have been established at a number of universities, with several of the earlier ones created with the support of the Kellogg Foundation.

Of course, the agricultural extension services predate the all-university activities. These services in many respects are the progenitors and models for continuing education not only for the professions but for lifelong learning for general welfare. The extension services are

geographically widespread and varied in substance, although they seem to have served the rural population more satisfactorily than urban populations since they have always been tied to agriculture.

While the future of continuing education is firm (Hesburgh, Miller, and Wharton 1973), much work remains to be done. Activities in some fields are still markedly limited. Leadership for such development normally comes from professions in academe. In some fields the development of continuing education programs by professional schools has low priority, e.g., in law (Sneed 1972, p. 226). Parker and Ehrlich (1972) in their Carnegie volume on law have only one short paragraph dealing with continuing education. Their statement indicates that continuing education in law is not systematically pursued nor is its organization consistent or clear. Continuing education remains an area of unfinished business in professional education.

Traditional Instruction

Up to this point, we have seemingly neglected to say anything about instruction or teaching. Such apparent neglect stems from a similar neglect in the literature. There is a modest literature concerning instruction in the various professional areas as will be discussed later. Some observations can be made that point to differences and similarities in modes of teaching in selected professions. First, instruction in law will be characterized and then variations in other areas will be considered. It has been observed that instruction in law schools takes a definite form:

> "Thinking like a lawyer" points to form and approach more than to substance. *This focus dominates law school teaching*: [italics added] the use of appellate cases to extract principles of reasoning, and the Socratic method of contact between teacher and students. Classes are large; law school teachers are almost legendary for their virtuoso style, skill at performance, and ability to put students on the defensive . . . (Hughes, p. 155).

If teaching in law schools differs significantly from normal classroom instruction as found in the social sciences, where large classes are also often the norm, even into the graduate years, the differences are revealed in the above quotation. They may be identified as use of "cases," the "virtuoso style" associated with teachers of law, a perfection and normative use of the Socratic method, and the classroom style that puts students on the defensive. None of these qualities is unique to legal education but the emphasis may be. Law school

faculty are also generally considered to be more aggressive, ruthless, given to ridicule, humiliation, and sarcasm (Hughes, pp. 155-156). In these characteristics they may be distinctive as a class, but other teachers too frequently display these characteristics. The practice of creating anxiety, even fear, among students in law schools seems to be condoned if not encouraged because the practice of law is viewed as establishing an adversary relationship characterized in part by qualities displayed by the teacher of law.

Law is perhaps distinctive among the more prestigious professional schools in that "teaching is firmly established as the core activity of law professors." Research or other scholarly activity is not particularly required and teachers of law are in no way sensitive or self-conscious about this (Hughes, p. 147).

Finally, law is distinctive in terms of what it does not do as compared to emphases in other professional schools. Legal education is highly didactic with little emphasis on learning the technologies or skills involved in legal practice. Law has nothing comparable to the clinical years in medicine or to their clerkships, internships, and residencies. It does not even approximate the attention given to field or laboratory experience in social work or education. The moot court activity is modest and only a few of the most able students get the rigorous experience of "doing scholarly work" that is associated with being on the "law review."

Medical schools, in contrast to law, are perhaps at the other end of a continuum. Didactic instruction is minimal. There are two basic science years that rely heavily on laboratories—anatomy, biochemistry, microbiology, and so on. There are lectures in the last 2 years, but the teaching is clinic oriented and occurs in hospitals—in the wards, outpatient and emergency rooms, and in the hospital library.

Dentistry is taught much the same as medicine, except the clinics are largely within the dental school structure. Hospital service in the training of dentists is modest. Laboratories and practicums are typical of health professions, such as nursing, medical and X-ray technology, and occupational and physical therapy.

Teaching in professional schools that are based in the social sciences curiously has less identity or distinctiveness than is seemingly the case in the health related professions and law. We think of such professional areas as teaching of education, business administration, public administration, and social work. Here the teaching is highly classroom oriented, and didactic in character. The pattern is very

much like that found in the social science disciplines at advanced baccalaureate and graduate levels. As an example, Mix (1971) found study of education following a disciplinary model rather than the model established in law or medicine. While these professional fields do attempt to introduce potential practitioners into the reality of practice, the efforts are limited. Potential journalists will work on the college newspaper and seek summer employment with newspaper publishers. Teachers will be required to do "practice teaching," and social workers educated at the master's level for the M.S.W. will have a rather extensive "field experience." Education, particularly at the graduate level, has been struggling for 40 years to define an internship and systematize its rationale and use and has not succeeded. One recurrent problem for the social science based professions and certainly in education is to find "field experiences" where the neophyte can work with a "master" in the profession who also knows how to interact with the neophyte. The numbers involved in training teachers run into the tens of thousands, if not hundreds of thousands each year, and are a major barrier not commonly recognized by those who would "remake" teacher education.

Several of the professions have become sufficently self-concious about their educational processes, including teaching, to evolve programs of study and research. The concern of a small group of faculty in the medical school at the University of Buffalo in the 1950's led to the volume: *Teaching and Learning in Medical School* (Miller (ed.) 1961). This volume deals with the medical student, the process of learning, the tools of instruction, and evaluation of learning. A few medical schools have established within their structure centers, institutes, or offices of medical education headed by a person who by training or experience becomes a professional educator in medicine. The University of Illinois Medical School, the Medical College of Virginia, and the University of Southern California Medical School have such organizations. The Association of American Medical Colleges has divisions dealing with research and study and sponsors annual clinics or workshops where medical instructors in a given field, e.g., anatomy, microbiology, are brought together with educators to review and analyze their policies and practices (AAMC 1973).

Engineering has for some years been at work to improve its educational processes. Lancaster, Associate Dean of Instruction for the Pennsylvania State University, College of Engineering, has a forthcoming volume titled *Effective Teaching and Learning*. The book draws heavily but not exclusively for its substance and organization

from the generalists in learning and teaching (largely psychologists and educators). Its validity is high in terms of what is now generally known about teaching and learning. And it is also replete with clever line drawings, applications, and bibliographical references directed to the education of the engineer. Volumes such as this are not produced with any frequency for education in the various professions. There is, however, some indication that professional educators are becoming more conscious of the need for improvement in this area.

A part of the problem, related primarily to the ambiguities in teaching or instruction, and modestly to curriculum, is the paucity of conceptual bases, not to mention theories, upon which teaching and instruction at the advanced levels of higher education can rest. The concept of an "organized class" that meets for a given block of time on a regular schedule over weeks or months, as well as the pervasive view that teaching should be didactic and verbally saturated, is obsolete as a base for professional education. The discussion that follows attempts to define a base more suitable for training in the professions.

Socialization and Professional Education

When sociologists use the concept *socialization*, they have a technical meaning in mind that is usually only vaguely understood by other disciplinarians and by educators of professionals. If such persons speak of the term, their ideas relate to acquiring habit patterns of good social behavior, that is, politeness, good manners, conformity to community mores, being law abiding, and so on. To sociologists socialization refers to the ends and the processes by which an individual becomes an accepted member and one who displays normative behavior within a community of persons bound together by such considerations as belief systems, values (including religious), mythologies, practices of child rearing, speech, social interaction, rituals, and habits. The process insures an end that is one of identity. Therefore, a person can be socialized to a national or ethnic identity, to a racial or religious identity, or to a *professional identity*. It is this last that occupies our subsequent discussion.

Fife (1971), after reviewing relevant sociological literature, summarizes the characteristics of the process of socialization. First, he accepts Inkeles' definition (1969):

> Socialization refers to the process whereby individuals acquire the personal system properties—the knowledge, skills, attitudes, values, needs and motivations, cognitive, affective and conative patterns—which shape their adaptation to the physical and socio-cultural setting in which they live (pp. 615-616).

He then states that the processes are both internal or psychological and external or sociological. According to Fife, the five psychological processes are: "identification; imitation and modeling; congruency of goals, values [and] norms [of] behavior; the development of a new self-image or identity; and, finally, the internalization of these goals, norms, values and patterns of behavior" (p. 3). Fife reports that these elements are a product of the synthesis of many references, and that no one reference identifies the processes in this progressive fashion.

The elements of sociological process are not as clearly delineated in Fife's analysis. He speaks first of the socializing agent or agencies. These are "significant others" in Elkin's phrase (1960). This may be a role model (parent, teacher, family doctor) or peer group. The classic *Boys in White* (Becker et al., 1961) reveals the preeminent effect of the peer group of fellow medical students in the education of the physician. This study reveals that the mentor physician-teachers do not perceive with any great validity what the students are really studying and learning, i.e., how they are "operating" in the medical school setting.

A second aspect is that the individual undergoing socialization has "the ability . . . to empathize with and imitate the role of his model" (Fife 1971, p. 11). The child will "walk like" his father, he will use the idioms and express the values of his household. The professional-to-be will dress like, talk like, act like and ultimately "think like" his mentors—physicians or lawyers, engineers or psychologists, i.e., those who are operationally at home in their profession and know who they are. If the individual does not have the capacity to empathize and "imitate," he will probably be a dropout.

A third aspect of the sociological process is that the environment—the agents, the peers, the "significant others"—appropriately reinforces or rewards the behaviors displayed by the one being socialized. This system operates subtly, it uses symbols almost entirely, and it is an essential part of the process. The neophyte studying for a profession *must know* how he is doing; in other words, he must have feedback.

In terms of the education of the professional—for which the term *socialization* perhaps better connotes the full essence of that education than do the words training and education—the product is the achievement of the identity of the professional man or woman: the attorney, the chemist, the architect, the nurse, and the accountant are all statements of a professional identity. In terms of our very early statements of criteria for professionalism, socialization produces the auton-

omous professional who knows who he is, is committed to his profession, is motivated to serve as a professional throughout his work career. Consequently, the professional person through the socialization process achieves identity, autonomy, commitment, and motivation.

The full implications of the socialization process have not been explored by the educator of professionals. He knows what he is doing but he has not conceptualized the process and hence is limited in his ability to utilize fully the meaning of the process. Toombs (1974), in addressing the character of graduate education in its fullest and best terms, has described equally well the full dimensions, meaning, and character of the education of the professional.

> The instrument of instruction at work in graduate programs at the doctoral level is nothing less than the total learning situation. The individual voluntarily immerses himself in a setting not unlike the "total environment" developed so skillfully by Erving Goffman in his conceptualization of the resocialization process in closed institutions like hospitals, military camps, and prisons. In such a controlled environment, the student meets a succession of bounded situations each filled with critical incidents which in the end shape his outlook and refine his skills. The objective of the process in all its intricacies is the socialization of the individual to a well-defined role. This orientation of personal values, attitudes, assumptions, and behaviors, along with the careful development of elaborate cognitive, linguistic and where necessary manipulative skills, probably makes doctoral study one of the most powerful examples of adult socialization, all the more striking because both entry and continuance are essentially voluntary (p. 2).

Mix, a nonsociologist, (1971) explored the generalized significance of the concept of socialization for graduate and professional education. In interviews, scholars (professors) who were effective in seeing graduate students to a successful completion of doctoral programs readily described their operations in socializing terms. They knew what they were doing. Interviews with graduate students were equally revealing, in that the students knew how they were being educated and trained although they did not utilize the concepts of socialization.

Both students and professors clearly understood that course work was a necessary condition *but* that it was something "to get out of the way." It was the interactions between master scholar and neophyte in laboratories, in seminars, in attendance at conferences, in social situations such as departmental parties, and in a host of other comparable activities that turned the neophyte into the incipient disciplinarian or professional. Mix's study was essentially one of graduate education. However, she did review and test her ideas on a comparative basis in regard to education for medicine and law.

The processes were essentially the same except for one significant item. In graduate study, the influence of the single professor, the chairman of the student's "committee" and the adviser regarding his research, was preeminent. In the professional school, the influence of the single professor as mentor or role model was secondary to the effects of the total environment—the professoriate collectively in the form of the hospital environment or the law library. When Mix looked at graduate work in the school of education, she found the pattern of the graduate school applied rather than that of the schools of law or medicine.

Thorne (in Hughes 1973, pp. 95-99), in his account of professional education in medicine, titles a section, "Medical Students: Initiation and Socialization," and comments that "the process of becoming a doctor is one . . . of socialization, of learning the skills, knowledge, values, mores, life style and world view of the medical profession . . . [It is] also [one of] initiation into a club and brotherhood." His discussion then focuses on the processes of socialization and initiation.

The long range effects of viewing and projecting developments and patterns of professional education in terms of processes and products of socialization can only be conjectural. They should be significant. The consequences should reduce an emphasis on mere knowledge learning in courses, although the necessity for a certain mastery is understood. The process should enhance the significance of mentors as role models. It should also enhance the significance of the total environment, particularly the significance of field and laboratory experiences, activities in studios and libraries, the translation of knowledge and theory into patterns of application, and the mastery of skills (linguistic, technical, statistical, communication, examination, and diagnosis, all of which are aspects of performance). The practicum, the internship, the post-doctoral fellowship, and programs of continuing education can take on enlarged and more significant meaning when they are viewed in terms of socialization. It seems reasonable to conclude that while diversity of form and substance exists, the professions and those who educate for them have broad areas of mutual interest that will fall into the category of "socialization."

The Professional School and the Larger Environment

Another set of generalized professional concerns relate, first, to the place or status of the professional school and its faculty in a university setting and, second, to the implications for professional education of a professional's relationship to the larger society. Again, variables in status, prestige, maturity, and security among the professions will

affect these relationships. However, we do believe they are to some degree concerns of all who educate professionals.

Each profession in interacting with its professional schools must be sensitive to the numbers of potential practitioners that are to be produced year by year. If the societal need outruns professional supply, society will force an accommodation so that larger numbers will be educated even though educational quality may decline. This force was at work in the education of teachers for two decades after World War II. An alternative is that society will create a new and complimentary area of service or turn to other professional or semiprofessional fields that can accommodate an area of limited supply. It has been said that the police are the social workers for the poor, i.e., police officers adjudicate family disputes or counsel potential juvenile delinquents. Insurance agents are sometimes seeming surrogates for attorneys who have only a limited association with people regarding their day-to-day need for counsel. Sometimes a professional body will itself seek out auxiliary personnel to increase productivity. This has been the case in fields associated with health. For example, midwifery is a career in some areas of the world, including some areas of the U.S., where the supply of physicians is marginal. In the U.S. the development of health service personnel who are not physicians has been spectacular in the last two decades. An important point is that the education of these persons is often motivated by a medical faculty; thus new programs related to health maintenance emerge in the university.

Each profession at one time or another seems threatened by "spin-offs" into areas of specialization that may become new professions or are otherwise threatening. Sometimes *new specializations* based on *new knowledge* may also become competitive or threatening to established professions. Professional schools and the universities that contain them get caught up in conflicts arising from these evolutionary activities. Medicine seems to be in the process of absorbing osteopathy as it once absorbed homeopathy. Medicine is, however, unequivocally opposed to a fraternization with chiropractic. Clinical psychology and psychiatry have only recently achieved an uneasy truce. University presidents and chief academic officers know the educational problems of jurisdiction and competition for resources that arise in these boundary conflicts.

The larger matter of the professional school's relationship to the university and its other constituent units is a major preoccupation for general university administrators and for the schools themselves. The disciplinary schools are normally answerable only to their university

based peers for judgment of their work. There is no system for enforcement of standards among institutions. Whatever controls operate—and they do often in subtle form—operate *informally*. Scholarly activity is the hallmark by which disciplinarians are judged; however, they have no duties comparable to other types of professionals, e.g., doctors —even as teachers. The professional schools and their faculties are, however, *formally accountable* to others in terms of accreditation and licensure or certification of their graduates. Stringent controls are exercised over professional schools by legal bodies, while discipline based schools (liberal arts and sciences) have few such controls. This situation often produces conflict or at best an uneasy truce among deans and other administrators of professional schools in relation to general university administrators and each other.

At times, professional schools are given great autonomy and even independent status by their associated universities with respect to certain controls. Health related schools are often highly autonomous with respect to general university policies or control systems, sometimes with their own resource support systems and freedom from normal constraints on faculty (for example, outside earnings). Recent rulings by state and federal labor relations boards have operated to place health faculty and law faculty "outside" bargaining units (unions) to which other faculties of a given university are bound. Criteria for appointments and promotions, salary schedules, academic calendars, library centralization or decentralization, and others are matters of frequent disagreement among professional schools and disciplinary faculties. General university administrators often need vast wisdom and experience to maintain harmony in the face of almost constant threats of conflict among the colleges, conflicts which emerge from differing conceptions of role and accountability.

Professions and Institutions

The U.S. Census of 1970 identified 7,853,619 persons as professionals by the census definition.[1] This represents 9.5 percent of the work force, which numbers just under 83 million persons.[2] Of the male work force of 52 million, 4.25 million were defined as professionals, or 8.2 percent of the work force. Of the female work force of just under 31 million, almost 3.6 million were classified professional, 11.6 percent of the total female work force of the nation. Table 1 presents these and other pertinent data.

The percentage of the professional male work force increased from 5.1 in 1950 to 6.4 in 1960, and to 8.2 in 1970. The total number of males in professional categories grew from approximately 2.2 million to 4.25 million (not quite doubling) in the two decades. The percentages for females are 9.7 in 1950, 10.4 in 1960, and 11.6 in 1970. The total number of female professionals at work grew from 1.6 million to 3.6 million in 20 years.

Just under 4 percent of the total population of the U.S. in 1970 was at work in a profession, which represents a growth from 2.5 percent in 1950. The numbers just cited in these paragraphs validate the observation that "society at large is tending to become a society of experts" (Vollmer and Mills 1966, p. 29). These "experts" are the "professionals" to whom the author refers in this paper. We can also accept the observation that "employment growth will be fastest among those occupations requiring the most education and training" (Leslie, Mortimer, Anderson 1971, p. 41).

The significance of these observations is somewhat qualified as we begin to understand that, in general, in the 1970s the growth in population of those attending elementary and secondary schools and those who seek higher education is approaching a steady state. The

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[1] The census uses the *Directory of Occupational Titles* (1967) classification system, which places professionals, technicians, and "kindred workers" in the same category. Therefore, in engineering, for example, both engineers with bachelor's degrees or more and technicians with associates degrees or less are included as professionals. Folger and his associates (1970, p. 91) reported that in the 1960 census only 56 percent of the engineers classified as professionals had bachelors or higher degrees. In 1970, this percentage had increased to about 59 percent.

[2] The crudity or imprecision of work force statistics is revealed by the statement of Hughes and others (1973) that "by 1969, 11 percent of employed Americans worked at professions" (p. 2) as compared to the 9.5 percent just noted by us.

Table 1. Number of Professional Workers and Percentages of Professional Workers to Population and Work Force: 1950, 1960, and 1970*

	1950			Percentage	
	Population	Work Force	Professional	Population	Work Force
Males	74,833,239	43,091,000	2,202,272	2.9	5.1
Females	75,864,122	16,551,990	1,611,498	2.1	9.7
Total	150,697,361	59,642,990	3,813,770	2.5	6.4
	1960				
Males	88,331,494	47,467,720	3,033,990	3.4	6.4
Females	90,991,681	22,409,756	2,326,658	2.6	10.4
Total	179,323,175	69,877,476	5,360,648	3.0	7.7
	1970				
Males	98,912,192	52,076,663	4,274,358	4.3	8.2
Females	104,299,734	30,820,770	3,579,261	3.4	11.6
Total	203,211,926	82,897,433	7,853,619	3.9	9.5

*Data for Table 1 and other tables for 1950 were drawn from the 61st Yearbook, NSSE (op. cit.), pp. 4-7. Census data for 1960 and 1970 were drawn from Detailed Characteristics, U. S. Summary, Bulletin PC (1) — D1, Table 221, pp. 718-719. (These citations were the sources of data for Tables 2, 3, and 4.)

growth in population accounted for part of the growth of enrollments in educational institutions at all levels in the 1960s and earlier. Also during the first three quarters of this century the percentage of the appropriate age group of the population who "went on" first to the high schools and later to the colleges and universities was increasing year by year. These two aspects of growth will not be as significant as in the past. The expectations of the last quarter of this century are for a deceleration, although the exact degree of decline is still conjectural. The most significant observation for the consideration of those concerned with professional education can be stated tentatively as follows: (1) growth in professional fields at the bacca-

laureate levels will probably exceed that for general or liberal areas and perhaps at the expense of these areas; (2) growth at the graduate professional level (including first professional degrees, e.g., law and medicine) will continue until the pool of those competent to succeed at these levels approaches exhaustion; (3) graduate school enrollments will increase. While students of enrollment growth and manpower need levels have cautioned administrators of colleges and universities that current market patterns will not permit the "placement" of these graduates in the current job market, these graduates will not be unemployed. They will be absorbed into *new areas of service* and these areas may in many respects be deemed professional or approaching professional status. (See chapter titled "Human Resources for Professional Services" for comments about the relevancy and significance of manpower studies, i.e., studies of demand and supply for the various areas of professional work in the future.)

By considering the numbers of persons in several of the professions, one can estimate the dimensions of the professional education task. These dimensions include the gross numbers who have been educated and trained at a given point in time. But estimates can be made of future needs in terms of population growth and "turnover" figures if such are known. For example, if population growth in a decade were to be 20 percent (2 percent per year), and replacements for those who leave the profession by finding other employment, by retirement, or death were 40 percent in a decade (4 percent per year), then in any given decade 60 percent of the number of persons in the professions at the beginning of the decade would need to be educated in the succeeding 10-year period. This illustration is oversimplified but it demonstrates one method to project the educational need dimension for a specific profession.

Other dimensions involve the number of institutions that might be involved in educating a given class of professionals. The number of persons teaching that field could be coordinated with other data and approximations could be made. While many of these data can be determined with some precision, anyone familiar with data concerning higher education projections knows that they are often extremely imprecise, vague, or nonexistent and are more imperfect than the imperfect data on which they rest. The short discussion and tabular material that follows provide some gross generalizations about the task of providing professional manpower to the numerically largest professions in the work force.

A detailed analysis of the professional group shows that 85 percent

Table 2. Number and Percentage of Males in Selected Professional Occupations. (These numbers are of Total Male Professional workers and the Total Male Work Force: 1950, 1960, and 1970.)

Occupation	1950			1960			1970		
		Percentage			Percentage			Percentage	
	Number (Male)	Male Professional	Male Work Force	Number (Male)	Male Professional	Male Work Force	Number (Male)	Male Professional	Male Work Force
Engineers	527,772	24.0	1.2	864,147	28.5	1.8	1,210,100	28.3	2.3
Accountants	327,119	14.9	0.76	414,026	13.7	0.87	525,750	12.3	1.01
Noncollege Teachers	285,847	13.0	0.66	492,319	16.2	1.04	823,001	19.3	1.6
Physicians, Medical and Osteopathic	180,532	8.2	0.42	216,676	7.1	0.46	255,667	6.0	0.49
Lawyers and Judges	174,893	7.9	0.41	210,715	6.9	0.44	260,109	6.1	0.50
Clergymen	161,572	7.3	0.37	197,109	6.5	0.41	212,654	5.0	0.41
College Teachers				148,324	4.9	0.31	350,505	8.2	0.67
TOTAL	1,457,735	66.2	3.4	2,394,992	78.9	5.0	3,638,086	85.1	7.0
Total Male Professional	2,202,272			3,033,990			4,274,358		
Total Male Work Force	43,091,000			47,467,720			52,0 6,663		

Table 3. Number and Percentage of Females in Selected Professional Occupations. (These numbers are the Total Female Professional workers and the Total Female Work Force: 1950, 1960, and 1970.)

Occupation	1950			1960			1970		
		Percentage			Percentage			Percentage	
	Number (Female)	Female Professional	Female Work Force	Number (Female)	Female Professional	Female Work Force	Number (Female)	Female Professional	Female Force Work
Noncollege Teachers	839,836	52.0	5.1	1,301,463	56.1	5.8	1,956,045	54.7	6.4
Registered Nurses	393,930	24.0	2.4	613,686	26.4	2.7	819,268	22.9	2.7
Musicians and Music Teachers	79,626	4.9	0.48						
Accountants	56,377	3.5	0.40	81,860	3.5	0.36	186,953	5.2	0.61
Social Workers	52,846	3.3	0.32	59,367	2.6	0.26	138,856	3.9	0.45
Librarians	49,355	3.1	0.30	64,649	2.8	0.29	101,542	2.8	0.33
College Teachers				46,521	2.0	0.21	140,372	3.9	0.45
TOTAL	1,471,970	91.0	8.9	2,170,546	93.3	9.7	3,343,036	93.4	10.9
Total Female Professional	1,611,498			2,326,658			3,579,261		
Total Female Work Force	16,551,900			22,409,756			30,820,777		

of *male* professionals in the work force in 1970 are in seven occupational groups. These in descending order of total numbers are: engineers, 1,200,000; noncollege teachers, 823,000; accountants, 525,000; college teachers, 350,000; lawyers (including judges), 260,000; physicians, 250,000; and clergymen, 212,000. Compared to 1950, the number of college and noncollege male teachers increased dramatically; engineers more than doubled, and accountants, physicians, and lawyers increased 50 to 60 percent.

Six occupational groups accounted for 93 percent of the *female* professional work force in 1970. These are: noncollege teachers, who number almost 2 million and comprise more than half of all female professionals; registered nurses, 819,000; accountants, 187,000; college teachers, 140,000; social workers, 139,000; and librarians, 102,000. Noncollege teachers, comprising 55 percent of the female professionals in 1970, are the single largest professional group when both male and female workers are included. While the percentage of registered nurses has remained fairly constant for the past 20 years, the percentages of social workers, librarians, and accountants has fluctuated so that no clear cut trends may be extrapolated from the statistics. It should be noted that the Census Bureau classifications of 1950 and 1970 have changed somewhat, since music teachers are no longer classified with musicians but with college and noncollege teachers. Thus, the musician category for women is no longer large enough to include it in the top six, while the already large percentage of teachers is modestly increased (See Table 3).

As noted, Tables 2 and 3 include the new category of college teachers. In 1950 and 1960, male college teachers did not constitute a large enough percentage of male professionals to be included in the top six groups, while in 1970, college teachers are the fourth largest male professional group. Of the female professionals, college teachers became the sixth largest group in 1960 and also moved up to fourth in 1970. The total number of college teachers has increased from 3.3 percent of the total percentage of professionals in 1950 to 6.3 percent of the total percentage of professionals in 1970, with the greatest growth during the decade of the sixties. The growth in numbers and percentages of both noncollege and college teachers is related to the growth in school age population during this period and only modestly to the increased public demand and concern for education. Berg (1970, p. 11) refers to some of the desire for increased education as a "craze," often due to a desire for increased salary that later does not necessarily materialize. This does not alter the fact that students were being edu-

cated and teachers were required for these students. In 1970 three professional occupational groups each represented more than 1 percent of the total work force: noncollege teachers accounted for over 3 percent; engineers, 1.5 percent; and nurses, 1.02 percent (Table 1).

While the occupational groups listed in Table 4 constitute almost 90 percent of the professionals so defined by the Census Bureau, the list is not exhaustive of even highly visible professionals, as it omits such occupations as dentistry, veterinary medicine, architecture, and pharmacy. While accountants are included, other professions from the field of administration and management are more difficult to classify. Occupations often called "emerging professions" also have been omitted from this listing.

Despite these and other omissions, it is clear that the number of professionals in the U.S. is increasing both relative to the work force and to the population as a whole. It is not surprising, then, that the numbers seeking professional and graduate education are also increasing. And it is no wonder that Mayhew (1970, p. 1) concludes that "graduate and post-bachelor professional training is and will remain the fastest growing segment of American higher education, expanding at an even more rapid rate than junior college enrollment."

Professional education of some character, it can be assumed, is carried on in nearly every 4-year institution in the land, of which there were 1,673 in 1970 (Wade 1970). This number includes 160 that the Department of Health, Education, and Welfare designates universities and 797 liberal arts colleges. The remainder of the 1,673 includes 187 teachers colleges, 54 technological schools, 206 theological and religious schools, 46 schools of art, and 81 categorized as "others!" This is a miscellany of institutions and includes none of the 2-year institutions numbering 892. The U.S. has never been known for the accuracy or the rationality of its educational statistics, particularly those of higher education. But the above numbers are more than suggestive of the institutional dimensions of professional education.

To help clarify the ambiguity of number and variety of institutions (or perhaps to add to it!), the 498 institutions accredited by the National Council for the Accreditation of Teacher Education (NCATE) can be reviewed (Furniss 1973). In this group five have "teachers" in their title (compare this to the 187 teachers colleges noted previously). Eight-two are designated state colleges and 53 are titled state universities that do not grant a doctorate. It is assumed the remainder (358) can be legitimately called universities or largely private

Table 1. Number of Persons in Selected Professional Occupations and Percentages. (These numbers are of the Total Professional Group and the Total Work Force: 1950, 1960, and 1970.)

Occupation	1950			1960			1970		
		Percentage			Percentage			Percentage	
	Number	Professional	Work Force	Number	Professional	Work Force	Number	Professional	Work Force
Noncollege Teachers	1,125,683	29.5	1.90	1,796,782	33.5	2.57	2,779,016	35.4	3.35
Engineers	534,124	14.0	0.90	871,372	16.3	1.25	1,230,652	15.7	1.48
Registered Nurses	403,798	10.6	0.68	629,637	11.8	0.90	841,998	10.7	1.02
Accountants	383,496	10.1	0.64	496,886	9.3	0.71	712,703	9.1	0.86
Physicians, Medical and Osteopathic	192,317	5.0	0.32	232,826	4.3	0.33	281,768	3.6	0.34
Lawyers and Judges	181,226	4.8	0.30	218,258	4.1	0.31	273,536	3.5	0.33
Clergymen	168,419	4.4	0.28	201,836	3.8	0.29	221,125	2.8	0.27
Musicians and Music Teachers	161,307	4.2	0.27						
College Teachers	125,640	3.3	0.21	194,845	3.6	0.28	490,877	6.3	0.59
TOTAL	3,276,305	85.9	5.49	4,641,442	86.6	6.64	7,050,677	89.8	8.50
Total Professional	3,813,770			5,360,648			7,853,619		
Total Work Force	59,612,990			69,877,476			82,897,433		

liberal arts colleges. It can be added that "most universities have schools of education and most liberal arts colleges have programs in teacher education that meet certification requirements" (p. 18).[3]

Such ambiguous and perhaps even dull statistical reports have only limited significance to those concerned with education for the professions. Yet, they do reveal to the student of higher education the pervasiveness of professional education among the variety of institutions that constitute the higher educational system of the nation and, in addition, provide some sense of its dimensions.

Two more quantitative observations need to be made: the number of professional colleges involved in educating for selected professions, and whether their location is in or outside of an institutional complex; and the proportion of all degrees granted that are professional in character.

As nearly as can be determined, there were 217 accredited colleges of engineering in 1972. All but 17 were part of a university complex. For the same year there were 153 accredited schools of business, 59 schools or colleges of journalism, 49 schools of library science, 73 graduate schools of social work, 70 schools of architecture, and 18 schools of veterinary medicine. All these schools seemed to be located in institutions of complex character; in other words, none of the schools were independent.

The professions maintained independent colleges in 1972 as follows (numbers given are the independent professional schools out of the total number of professional schools accredited): 11 of 147 law schools,[4] eight of 110 in medicine, three of 74 in pharmacy, five of 10 in optometry, and two of 17 in dentistry (except that the two dental schools are associated with medical colleges). Figures on theological seminaries are ambiguous. In 1972, the American Association of Theological Schools accredited 56 seminaries as parts of regionally accredited institutions and 63 as independent. But not all theological seminaries submit themselves to accreditation. We do know that the great majority of theological schools are either independent or, if they are associated with a university, are in large measure highly autonomous.

The number of professional schools that were independent in earlier eras greatly exceeds the number that are now independent. The trend is unmistakable that professional schools have by and large be-

[3] The statistics in this paragraph and those in following paragraphs are a tabulation of institutions listed in Furniss (1973, pp. 31-99).

[4] The 147 law schools were accredited by the American Bar Association. One hundred twenty-four law schools are accredited by the American Association of Law Schools.

come a part of university complexes. Data for the eleven professions mentioned above show six of the 11 have no independent colleges and, except for optometry, four of the remaining five professions number fewer than 10 percent of their total number as being independent.

Table 5. Bachelor's and First Professional Degrees Conferred.

	1957-58		1971-72*	
	Number	Percentage	Number	Percentage
Professional Fields				
Education	82,892	22.7	181,400	20.8
Business	57,669	15.8	121,000	13.9
Engineering	35,332	9.7	51,100	5.8
Agriculture	9,556	2.6	12,900	1.4
Religion	8,830	2.4	....	....
Medicine	6,861	1.9	26,800	2.9
Pharmacy	3,772	1.0		
Social Work	....	....	10,100	1.2
Library Science	....	....	1,100	0.1
TOTAL	204,922	56.0	404,400	46.5
Nonprofessional Fields				
Social Science and Psychology	34,933	9.6	208,000	23.8
Science (and Mathematics)	30,726	8.4	83,500	9.5
English and Languages	20,576**	5.6	108,200	12.4
Music	7,625	2.1	32,200***	3.7
TOTAL	93,860	25.7	431,900	49.6
GRAND TOTAL	365,718		870,300	
Unaccounted for in above listing	66,966	18.1	34,000	3.9

*Source: *A Fact Book on Higher Education; "Interim Report" Fourth Issue/1973*, Washington, D. C.: American Council on Education, December 1973, pp. 5-6.

**Journalism, which perhaps should be included as a professional field, was included in English.

***In 1971-72, this is an enlarged category of fine arts, which includes music.

In the academic year 1957-58, 56 percent of bachelors and first professional degrees granted in the U.S. were in professional fields. The number of degrees in professional fields totaled just under 205,000. By 1971-72, this number had increased to 401,000 (nearly doubling) but the percentage of the total had declined to 46.5 (see Table 5). These figures also are somewhat ambiguous. They seem to represent the true proportion of persons receiving baccalaureates or first professional degrees who will become professionals, but this is due mainly to the large representation of degrees taken by teachers. Teachers may be certified and graduated from a teacher preparatory program either in a private or public college or university and receive a nonprofessional baccalaureate (B.A. or B.S.) as contrasted with a professional baccalaureate (B.Ed). Another statistical ambiguity is caused by the increasing number who earn master of arts and doctor of philosophy degrees who anticipate becoming and do become professionals, for example, in clinical psychology or in chemistry.

What is not yet fully realized, and certainly not documented, is the extent to which graduate education is professional education (NSSE Yearbook, 1962, Chapter IX). A further item of interest is the extent to which disciplines are becoming "professionalized." In their book on the American professoriate, Jencks and Riesman (1968) have written of the degree to which the disciplinarian with advanced education operates in professional terms, even though he is a scholar and teacher. Between 1961 and 1965 a substantial proportion of those who held doctorates did not teach: in mathematics and the physical sciences 7.1 percent worked for the federal government, 32 percent for business and industry, and 7.3 percent in other areas; in psychology 8.7 percent worked for the federal government, 6.2 percent for business and industry, and 29.2 percent in other areas (National Research Council 1971, p. 87). The Carnegie Commission (1973a, pp. 146-147) reports that traditionally 10 percent of those who earn doctorates do not enter college or university positions.

Accreditation in Professional Education

Accreditation has occupied the time of educators since before the turn of the century. First efforts were motivated by the need to stabilize the relationship between secondary and higher education for purposes of admission and quality assurance. This led to regional accrediting associations of which there are six. The growth of specialized accrediting associations, i.e., associations which accredit professional programs, schools, or colleges, is of more recent origin. The National Commission on Accrediting is an organization that "registers" or "sanctions" these professional accrediting associations. As of December 1973, 38 such professional associations had been recognized. Their purpose is identical to that of the regional associations: to certify *a college or university or a program of study as having met certain predetermined qualifications or standards* (Selden 1960, p. 6).[5]

Three observations applicable to both regional and professional accrediting associations can be made. First, despite its history of nearly a century and its pervasiveness, accreditation is not generally understood by the rank and file of educators; and even among those who do understand it, it does not have complete or full support. Perennially at issue is the question of institutional autonomy.

Second, despite the controversy that has seemed endemic to accreditation, it has become pervasive in American higher education for total institutions and for professional schools. It is a powerful force guiding institutional development and the development of programs for educating professionals. While the nation is now blanketed by regional accrediting associations, and further need in this sector is not foreseen, it is inevitable that as occupations achieve professional character or as new professions are created, the need for new professional accrediting associations will occur.

Third, if the professional accrediting bodies did not exist, society would require some other mechanism to perform the function, thereby assuring society of quality that is consistent across institutions in the higher education segment of American education. The virtue of present agencies is that they are voluntary associations of peers.

[5] This volume, although published in 1960, still presents a full discussion of accreditation. Chapter VI deals specifically with accreditation of professional educational efforts.

They permit professionals to participate in the determination of standards and to police these standards themselves, and also permit institutional control of peer associations, so that members of each professional accrediting association select the new members.

The most likely substitute for voluntary associations for accreditation would seem to be the government. The various states, by working through their boards of education and professional support structures, assess the quality of institutions and programs. This development has reached its highest form under the New York State Board of Regents and the associated Department of Education. Its power and influence in determining quality in professional programs is much more pervasive than is generally understood. This power and influence operates through both program approval and control of licensure and certification. Selden (1960, p. 102) comments that "there are over 600 institutions outside the State of New York that have curriculums registered with the Board of Regents." It can be inferred that these 600 institutions are concerned with ultimate professional licensure or certification of their graduates in the registered curricula.

Perhaps the best way to gain insight and understanding of the historical antecedents, current issues and concerns, and alternative modes of action for accreditation of professional programs is to review the work of the Commission for the Study of Accreditation of Selected Health Education Programs.

This study commission was sponsored by the Council on Medical Education, the American Medical Association, the Association of Schools of Allied Health Professions, and the National Commission on Accrediting, and was funded by the Commonwealth Fund. The study director was William K. Selden, who served as Executive Secretary of the National Commission on Accrediting from 1955 to 1963, and as Executive Director from 1963 to 1965 (National Commission on Accrediting 1965). The Staff Working Papers dealt with such topics as structure, financing, research and expansion of accreditation, as well as dilemmas of accreditation, the relationship of accreditation to certification and licensure, and legal aspects of accreditation. The final report of the Commission sets forth the issues covered in the study, basic policies for accreditation, and conclusions and recommendations. In a final observation, the commission comments:

> The economic, political, social, and technological pressures that are forcing changes in all aspects of society are also requiring that the structure and operations of accreditation be revised. Cognizant of the need for

change the American Medical Association initiated this study of Accreditation of Selected Health Educational Programs, and with the Association of Schools of Allied Health Professions and the National Commission on Accrediting, has co-sponsored SASHEP.

In this report the SASHEP Study Commission has presented specific recommendations for the creation of a new organization to be responsible for the accreditation of the selected health educational programs that are the primary focus of the study. The creation of this new organization would be a constructive response to the pressures facing accreditation. However, the creation of such an organization would not alone be adequate for the needs of the times.

Of even more importance is *the need for recognition and acceptance of the concepts contained in this report on the part of all agencies and organizations directly concerned* [italics added] with the accreditation of the selected health educational fields. To attain this objective the Commission believes that the three co-sponsors of SASHEP must immediately initiate steps toward joint consideration and implementation of the concepts presented in this report (Commission on the Study of Accreditation . . . Final Report 1972, p. 18).

This detailed and constructive report offers a program that should maintain "predetermined qualifications or standards" for the several health-related professional education programs. (The study commission selected 15 health education programs for the focus of its activity.) The final report states that in 1970 physicians accounted for only 8 percent of the total active health manpower in the U.S., but the number of persons in the allied medical sector grew from 140,000 to 535,000 between 1950-1970, an increase of 280 percent. The final observation of this study can be interpreted as saying: "Let's stop arguing and accept this study and without further controversy accredit the programs in allied health fields."

There is every reason to believe that in the next two decades new areas of professional service will emerge, as have the allied health fields. In some instances these will be clustered around an established profession. In others, significant new occupations or substantial modifications of existing ones will occur. A field seemingly ready to explode with related but distinctive occupations is public administration. It should soon be apparent (perhaps in 10 to 20 years) that public administration, because it involves a variety of skills, each technically or administratively distinct, can produce a professional cluster or clusters. Some of the areas of service that might be involved are: (1) administrative and technical services related to social pathologies, such as crime, prisons, drug abuse, police administration; (2) administrative and technical services related to planning, such as for urban, rural, regional sectors of the nation, for underdeveloped nations, and for special areas of public service such as transportation;

(3) administrative and technical services related to regulatory agencies, such as communication, transportation, utilities, financial establishments, environment; and (4) administrative and technical services related to cultural development, such as museums, artistic companies, entertainment centers, public broadcasting, and so on.

Other forces at work lead to reformulations of areas of service that have become dated into not exactly new but often drastically modified areas of service. The case of home economics is pertinent. This service field grew out of the land grant university concept and has as its objective the improvement of home and family life in America. The first courses in domestic economy (home economics) were established at Iowa State College in 1873. In 1913 home economics became a Division of Iowa State and in 1958 became a College when Iowa State became a University. The stereotype is that home economics is cooking and sewing. These activities were important aspects of home economics when food preparation was largely a home activity and much of children's and women's wearing apparel was designed and constructed in the home. These activities are now largely commercial. The homemaker is, however, concerned with family nutrition, the care and feeding of the family, its economic base and the management of income, and the social-familial milieu in which children grow and learn. The home economist now finds major areas of professional service in government and in the business and industrial world—in food preparation, in consumer protection agencies, in clothing and home decoration manufacturing and sales, in financial institutions like insurance companies, and in schools. Developments have proceeded to the point where the names of colleges of home economics are changing (Vallance 1974): at Pennsylvania State University the College of Home Economics has become the College of Human Development, at Cornell the College of Human Ecology, and at West Virginia the College of Human Resources and Education.

Social Responsibility and Professionalization

Although professionals in America could profit by a much enhanced awareness of their responsibilities in a social-civic sense, it is not yet spoken of in the literature about the education of professionals. It is nonetheless a topic of high priority among those persons who are concerned with such matters, according to national journals and the news media.[6]

No profession seems immune from the criticism of being obtuse in letting its professional concerns be narrowly limited and in disregarding the "higher national good." Nor does any social issue that concerns significant proportions of the people fail to be identified with such professional obtuseness. Here are some typical charges that are made:

- Engineers fail to see environmental consequences of their highway building. They design automobiles that transcend in power and use of energy any sensible human need.
- Physicians, despite their spectacular success in developing curative, preventive, or restorative aspects of medicine, seem oblivious both to the costs of their services and to the fact that they are not available to large segments of the population.
- Lawyers neglect the poor and they clutter the courts because of a contingency fee system.
- Educators are indifferent to the education of minorities and the underprivileged.
- Business and industry respond only to one motivation, increase of profits. They are indifferent to their acts that pollute the air and waters, despoil the land, and waste our resources.
- Our legislators, members of the executive branches of government, even judges, are indifferent to the general welfare. They are often venal or without integrity, they knowingly violate human rights, and they are perpetrators of graft and corruption.

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[6] See, for example, "Watergate as Ethics Lesson: Jeb Magruder and Professor Coffin," *The Washington Post*, Sunday, September 23, 1973, p. C3; "Doctors Discuss Ethics: Justice, Utility and Emotion," *The Washington Post*, Sunday, September 9, 1973, p. C3; "Burger Arguing Legal Reforms That Few Seem to Want," *The New York Times*, Sunday, December 30, 1973, p. 24; "Integrity in Politics: Financing Election Campaigns, Accountability of the Citizen," *Report From Washington*, Common Cause, December 1973-January 1974, Volume 4, Number 2; "General Electric Meeting Faces Queries on Social Obligations," *The New York Times*, Friday, March 15, 1974, p. 45.

These charges are unsavory and in many respects biased. In the end, all are symptmatic of human liabilities and limitations. Yet the function of civilization, and of education as its handmaiden, is to construct restraints on corruption or venality, to maintain controls that thwart the violation of human rights in terms of self-interest, to educate to the ends of enlightenment and morality, and *to create a professional class that operates from altruism rather than from self-interest*. The educators of professionals are aware of a newer challenge, to educate an even more enlightened, socially sensitive, and deeply concerned body of professional workers. If the concern is not yet a part of the literature, it is nonetheless real. What is to be done? Guidelines are not yet formulated. But this item will, without doubt, be a topic of high priority and continuous concern to professional bodies and those who educate professionals.

Leslie and Morrison (1974) state that the process of education for professions is directly related to the major domestic social problems of the day. They discuss a variety of aspects of professional education that should be examined whenever educators consider moving constructively to enhance the social sensitivity of professional workers. They note the relation of supply of professional workers to demand for their services and they point to the commonly held view that medical services can only be extended as the number of persons being trained for the health professions is increased. In other instances they believe that the selection or admission procedures of professional schools should be more closely related to the *types of persons who are motivated and socialized* to particular kinds of service: for example, teachers to work in inner-city schools. A quick and often trite response to the challenge we are discussing is to add courses to the curriculum. These courses are generally philosophic or humanistic studies that are naively believed to foster humane attitudes. A few medical schools have established a humanities department to complement the basic science departments. The Milton S. Hershey Medical Center of The Pennsylvania State University has done this with support from the National Endowment for the Humanities. This school has also established a Department of Family Medicine.

Leslie and Morrison are concerned with service modes and delivery systems that professions conform to, and how these might be modified as professionals are educated to other than traditional modes and systems. The medical model is that of "one-to-one," the physician and his patient. This is the model followed by the social case-worker. It is proposed that preventive medicine, where a patient is never seen (as

when a health officer enforces sanitation in public eating places), or community development (where the social worker serves public officials in organizing controls that diminish social pathologies) be given more attention by health professionals, social welfare professions, and their educators.

It is proposed here that the concept of the socialization of the professional will provide a sounder base for professional education reform than ad hoc speculations or trial-and-error activities.

Human Resources for Professional Services: Some Predictions

The growth of higher education from 1950 until now has been nothing less than spectacular. In the decade of the sixties enrollments doubled, budgets increased three to five fold, and research funds by categories were for the first time available to nearly all who could claim competency to use them. Graduates at any level and in any field were highly employable and many fields of employment were never over saturated. Those times are obviously now over. The first half of the seventies finds us somewhat reluctantly accepting this fact; yet the reality higher education will experience over the next quarter century is at best unclear (Leslie and Miller 1974). However, we can speculate, since to speculate about the future seems better than to drift into or through it. Some *relatively stable* insights can be gained from manpower studies, studies of supply and demand, studies of employment, and past trends.

Despite the simplicity of the idea that supply and demand studies of professional manpower needs should lead directly to program planning, statewide control of program authorizations, resource allocation, and numbers to be admitted, this is not the case. Folger and his associates (1970, p. xviii) comment that the supply and demand concept "masks the variety of determinants of job allocation and discounts the flexibility of educated persons." Those only modestly experienced in what may someday be seen as a classic failure of manpower projections: the current supply and demand situation in engineering. The massive unemployment of engineers due to the phasing out of space exploration occurred because critical variables associated with the employment of engineers were not anticipated (Calvert, Pitts, and Dorion 1972, p. 14; Dubin, ed., 1971, pp. 14-15).

The complexity of manpower studies, the subtlety of their implications, the imperfect state of the art for such studies, and the insights and stimulation that they can provide for educational planners are readily perceived as one studies the 1970 staff report of the Commission on Human Resources and Advanced Education (Folger, Astin, and Bayer 1970). The Staff Report of the Commission is so long, so comprehensive, and so detailed that a summary cannot do justice to it. A few of the most salient items will be briefly discussed and a brief list of conclusions will be presented.

The Commission points out that the U.S. prepares a higher proportion of its youth through collegiate, advanced professional, and graduate education than any other nation. Yet the demand for these talented and trained persons in general exceeds the supply. Furthermore, our economy and society have "become larger, more complex, more urbanized, more technologically oriented, and more concerned about equality of opportunity" with the passing years (p. 1). As a result, more young people have sought more education, since it is generally recognized that education is "a necessity for dealing with the problems of growth and change in our economy and society" (p. 1).

The Commission then poses the question, "Has the expansion and change of our educational system at the collegiate, graduate, and professional levels kept pace with the changes in our society, and with the requirements of our economy for *specialized graduates* [italics added]? This question is extremely complex, and the remainder of this book (175 pages) will examine the answers that can be given to the many facets of this question" (p. 2). The Commission takes the position that much relevant work has been done in the years since World War II to answer this question: "The studies and statistical information that were gathered helped policy makers understand the complexities of the issues involved, but they left more policy questions unanswered than were resolved" (p. 2).

In a section of 75 pages the Commission comments on manpower supply and demand in seven professional fields: law, medicine, engineering, elementary and secondary school teaching, the social welfare occupations, nursing, and the performing arts. These seven fields employ about half of all professionals with about two-thirds of all college graduates going into these fields. It was noted earlier that an extremely large percentage of professional workers are teachers or nurses, so the reason for selecting these seven fields should be clear. The Commission summarizes:

> Of these seven fields, only in elementary and secondary school teaching and the arts does the output of colleges and universities appear to be adequate to the projected demand for graduates. In the arts fields, there is no evidence that a shortage of graduates has ever existed; in teaching, long considered a shortage occupation, the favorable supply-demand balance now developing will be clearly evident in three or four years. Law provides a special case: since law graduates can perform a wide variety of jobs, no good measures of demand exist. The supply in this field helps to create the demand. If there is a larger supply, they will probably all find employment; if fewer lawyers are produced, the jobs they now perform will be done in other ways.
>
> The analysis of each profession indicates the importance of flexibility

> in adjusting manpower supply to demand. Every field has experienced periods of rapid growth or shortages of graduates, and each has used some substitute means so that necessary services are provided. These adjustments will continue to be necessary in the future, because of our limited ability to project either the trend of demand or fluctuations in that trend (p. 142).

Finally, the Commission calls our attention to the problems of the educational and vocational development of women and of persons in the lower socioeconomic groups. In recent years, after a history of inattention, these two neglected areas for development and talent utilization have attained recognition and merit the educator's concern. (See also Wright 1972.) The resolution of the problem is exceedingly complex, a major part of which is attitudinal. Many persons (males and the middle-class) simply fail to perceive it as an issue. This attitude, in terms of social forces now at work, should not prevail long. But the absolute and pervasive neglect to *provide* education of any quality and substance to blacks, native Americans, and Spanish speaking persons from the beginning of the nation's history will not be remedied in a few years. We must also recall that a higher proportion of women in the total work force are employed in professional fields than men; but two fields, nursing and teaching, account for this (see also Carnegie Commission, 1973b). Large percentages of young women must be educated for other professions. Professions that are male dominated, such as medicine, engineering, and top level management, should bring women into their programs of professional education without further delay.

A few generalizations can be drawn from the completed studies of human resources for professional service:

1. Such studies are important and should proceed with alacrity. However, the art and science of such studies is circumscribed, particularly in terms of the complexity that such studies reveal. The results of such studies thus far do not form a firm base on which to plan and develop professional programs. Yet such studies do provide guidelines and cannot be ignored in planning professional education.

2. New professional fields will emerge over time. Some will be spin-offs of established professions, others will be transformations of professions that are moving to obsolescence, and still others will be responsive to needs and wants in an affluent society and in a world with an rapidly growing knowledge base.

3. The various professions are moving and will continue to move to secure a broader support for their services by developing sub- or

paraprofessional fields that will achieve professionalism in their own right.

4. The service sector of the work force now exceeds the production sector and may occupy three-fourths or more of the nation's workers by the end of the century. This growth will be discerned in the service professions.

5. By the end of the century the nation will have surely made it possible for women and the lower socioeconomic groups to take a more significant place in the professional work force.

6. The indications that we may anticipate a zero population growth by the century's end or shortly thereafter, and the evidence that the growth of enrollments in collegiate, advanced professional, and graduate institutions are now slowing and may soon level off are as yet only generally perceived. The implications of these trends, particularly as they interrelate with other variables, such as economic growth or no growth, diminution of natural resources, and increasing proportions of the population among the elderly, are not yet projected. Their implications may negate many generalizations now made with assurance.

Conclusions and Implications

On the basis of issues, concerns, practices, and trends suggested or developed in this paper, the comparative study of education for the professions is an idea whose time has come. The Carnegie Commission sponsored at least five studies dealing with professional education. One technical report dealt with *Trends and Projections of Physicians in the United States 1967-2002* (Blumberg 1971b), while three of the items in the Commission's reprint series relate to professional education.

As the data on the work force in America are reviewed and as supply and demand studies are evaluated, one must conclude that the number of professionals in the work force will increase and that the proportion of the work force that is professional will also increase, despite the lessening population growth and lower postsecondary enrollments. Even as a steady state of population and college enrollments is reached, an increasing demand for professional workers is projected.

In the years ahead, the professional work force will undergo significant change in its composition and in the alignments of the professions to each other. New professions will undoubtedly emerge and will become a vital force in our society. Old professions will experience spin-offs that will seek recognition as new professions. Specialization will increase and the homogeneity of interest and service of the various professions will be reduced. The "service professions" will grow in numbers at a greater rate than will professions oriented to production. Finally, subprofessional or paraprofessional areas of work will markedly increase and become part of the support systems for more established professions. They, however, will become more and more professional themselves and over time will increase their own autonomy in the work force.

These observations have a variety of significant implications for colleges and universities that educate professionals. New professional schools will emerge and programs for allied professional or paraprofessional workers will be developed. These will be located in colleges and universities, which, in turn, should be hospitable to such developments, although faculties will insist that each new field have a substantive knowledge base and that study for the field have a strong intellectual component. The new areas, if they are to find a home in

the college and university, have to be more than skills occupations: they must meet the test of professionalism. Thus, the proportion of college and university resources devoted to professional education will increase while the proportion devoted to general and disciplinary education will decrease.

As new professional service modes and delivery systems emerge, they will significantly modify the character of professional education. The use of allied professions and paraprofessionals will be part of this change and will influence the nature of education. Shifts in patterns of "paying for" professional service—perhaps from payment by recipients to payment through insurance systems or from taxes—will undoubtedly occur. Such shifts may change supply-demand ratios, and the demand for professional services will increase and likewise increase the number that must be educated. Abandonment of a fee system could change the attractiveness of certain professions for some students and cause changes in admissions practices or criteria.

It goes without saying that new programs will require faculties not yet in existence, and a select few of the universities of the nation will organize programs to educate new professionals as teachers and educators. Such programs to educate teachers for the health related professions are now beginning.

It is likely that educational planning relevant to the growth of extant professional schools, the establishment of new ones, and the founding of schools for new or emerging professions will accelerate. This planning should take place on institutional, state, regional, and national levels. Consortia similar to the Southern Regional Education Board and the Western Interstate Commission for Higher Education will proliferate and expand their programs, and the Education Commission of the States will undoubtedly grow in significance. Furthermore, such bodies as UNESCO are and will continue to be involved. Finally, all of the usual elements of planning, such as need, manpower, resource allocation, geographical proximity, and faculty availability, will stimulate continued study and research.

Accreditation and other modes of evaluation, including licensure and certification, should become increasingly institutionalized. The conflict inherent between these agencies and the colleges and universities who are jealous of their autonomy will have to be resolved.

We may tentatively conclude that study, analysis, and research of professional education will greatly increase. These studies will relate to single professions, such as law; to cluster of professions such as the health field; and to the field as a whole, namely comparative or

generic studies. Sociological studies are forming a significant body of literature about the professions and education for them. Presently, each of the professions is more frequently looking outside its own arena for insights and understanding. In this regard the Carnegie Commission studies have been and will continue to be a stimulus to further research and analysis, and monographs on this subject should become more frequent.

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